

**REMARKS**

The above amendment and these remarks are responsive to the Office Action of Examiner Kyung H. Shin of 13 Jan 2005.

Claims 1-10, 13, and 15 are in the case, none as yet allowed.

**35 U.S.C. 103**

Claims 1-15 have been rejected under 35 U.S.C. 103(a) over Salas et al (Salas, U.S. Patent 6,233,600) in view of Maurille (U.S. Patent 6,484,196).

In Applicants' invention, an access control list for the place in collaboration space is used for management of security of rooms with that space. That is, access to rooms within the place is limited to only those individuals listed in the access control list for the place. Thus, Applicants' invention provides a restrictive control over who may become a member of the various rooms within a place (that is, to whom managers can give access to rooms within the place.) This list of people are in the place main or root room of the hierarchy of rooms. A manager or author can only add to

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the access control list of a room or subroom individuals who are listed in the access control list of the root room of the hierarchy. This structure is brought out in the following references from the specification.

"Referring again to Figure 6, eight QuickPlace extensions 160 are enhancements made to the Domino web server 132 in order to support a QuickPlace application. These extensions 160 are enabled only for QuickPlace URLs; that is, they are enabled for URLs that are targeted against a particular QuickPlace. These extensions are: (1) shared design elements, (2) database linkage, (3) commands, (4) publish and draft model, (5) security and authentication, (6) forms and fields, (7) decoration model), and (8) graphics server." [Page 56, line 13 to page 57, line 1. Emphasis added.]

"(2) Database linkage enables the grouping of a number of databases in a hierarchical way. A place is a collection of databases, and these need to be represented in a parent child relationship. Data notes represent the hierarchy to the database. There is a data note in the parent database, and there is a data

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note in the child database. The use of data notes for these QuickPlace extensions as a way of representing their functionality has the benefit that there are many ways of manipulating them, whether it's with Java or forms or the Notes designer. [Specification, page 57, lines 12-21.]

" (5) The security and authentication QuickPlace extension is consistent with the QuickPlace model, which provides three levels of security or roles: reader, author, and manager. There exists a member directory for each place. What this means is that each place has its own set of members that visit it. The Domino server is modified to perform local authentication against that directory, making places very portable, self-contained. And they don't collide with other members in other places. A user, having control of his own place member directory, set his own security for access to that directory. [Page 59, line 15 to page 60, line 1. Emphasis added.]

"...a collaborative environment to be set up without administrative support, that is by members of the team itself, using a familiar and easy to use

browser user interface. Members of the team, acting with manager or author authority, and using such a browser interface without involving administrative or application development support, need to be able to set up a folder or room for each project element..."

[Specification, page 5, lines 7-15. Emphasis added.]

"A room is created from a default room type template, PageLibrary.ntf, which provides indexing infrastructure for maintaining the pages in a room, and also security and authentication features so that access to a room can be limited to a subset of team members." [Specification, page 55, line 16 ff.

Emphasis added.]

Nowhere does Salas teach that membership in an access control list control on a specific subroom in collaboration space is limited to members included in the access control list for the collaboration space. Thus, the reference to Col. 13, lines 31-34 of Salas states:

"...each object may be provided with a field or fields which identify users that may open, view, and edit the object."

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"Users" is not limited, apparently, to "members", as the latter may be identified for the place as distinguished from objects within the place.

Applicants invention provides a double linked list for linking rooms together in collaboration space, with access control list control on rooms and access control list control on forward pointers, or child pointers, to child rooms. Applicants have amended all claims to recite this specific structure.

This structure is illustrated in Figures 10 and 11 of applicants' specification, which are described as follows:

Referring to Figure 10, QuickPlace rooms 201-204 and 210 are connected by forward and backward pointers 205-209 and 211, and these enable the security of each room to be independently managed. Each room has its own security; that is, the identity of each user allowed to enter the room and that users security level: the three levels being reader, author, manager. This is held in an access control list which is a part of each room. While an individual, say Steve, has

reader access (R) to the library 204, he can have author (A) access to a subroom 211. This enables a subroom 211 to have increased/ maintained, or decreased access authority for a particular individual with respect to its parent room 204. Only individuals with access to a parent 204 can access a subroom 210, but that subroom 210 can have changed access for the subroom 210 for these individuals. Previously, security could not be increased in subrooms 210 with respect to a parent room 204.

A database access control list (ACL) specifies who can or cannot access the database. For users who can access a database, access levels and roles determine the specific actions they can perform -- for example, creating or deleting documents. Document access fields (Readers and Authors fields), in conjunction with the database ACL, control who can read or modify specific documents. Thus, to limit access to specific documents created from a form, a readers field is included. A readers field explicitly lists the users who can read documents created from the form. If a form has an access list, names from the readers field are added to the form access list. Otherwise, the readers field

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controls access to documents created from the form.  
Entries in a readers field cannot give a user more  
access than what is specified in the database access  
control list (ACL); they can only further restrict  
access. An authors field works in conjunction with  
author access in the database ACL. Listing users in an  
authors field expands access rights by allowing listed  
users to edit documents they create. Entries in an  
authors field cannot override the database access  
control list; they can only refine it. Authors fields  
affect only users who have author access to the  
database.

Referring to Figure 11, forward pointers 205, 209  
are secure. Security, in this context provides that  
forward pointer 205 to project A 203 carries the same  
security as that of project A 203, and anyone viewing  
main room 201 who is not entitled to access project A  
203 will not see room 203 listed in parent room.  
QuickPlace does not show a user things or objects to  
which the user does not have access. In past, such  
objects were shown, but were greyed out or otherwise  
managed so that user access was inhibited. Forward  
pointers, therefore, include room name field 212,

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address to database name field 213, and readers field 214, which includes a table of user identifiers 215 for each user permitted to access the room, with corresponding access authority 216 for each such user, which may be manager, author, or reader. [Applicants' specification, pages 48-50.]

Salas does not teach this structure of a double linked list for linking rooms together in a place with ACL security on rooms and ACL security on forward pointers in the double linked list.

The Examiner refers to Salas col. 3, lines 49-51 and col. 13, lines 32-34 as teaching a "readers field for providing access control list control on said forward pointer." [Office Action, page 5.] Applicants traverse. This is what Salas teaches:

"The server database 20 stores various tables which contain information about eRooms, members, access controls, and other data objects." [Salas, Col. 3, lines 49-51.]

"For example, each object may be provided with a field

or fields which identify users that may open, view, and edit the object." [Salas, Col 13, lines 32-34.]

Applicants assert that there is no teaching here of an access control list, or readers field, on a specific forward pointer from a parent room to a child room, which ACL or readers field is distinct from the ACL for the parent room. Applicants structure of access control elements provides a readers field as part of the pointer which is distinct from the ACL on either the parent or the child room, and is an ACL control on the pointer itself.

Neither Salas nor Maurille disclose or teach such a structure.

The Examiner refers to Salas, column 6, lines 39-55 for a teaching of forward and reverse pointers for enabling security of each room to be independently managed. Applicants respectfully traverse this characterization of Salas.

Salas refers to a hyperlink at column 6, line 43. A hyperlink is a type of pointer. That is, a hyperlink is a portion of text on a web page that is linked to another web

page, either on the same site or in another Web site. A hyperlink, as described by Salas, is how to get into a room, but is not a forward pointer in a double linked list structure with ACL security on the forward pointers in addition to ACL security on the child room. The Examiner refers to Maurille as teaching forward pointers identifying a child room, but is silent as to the existence of an ACL control on that pointer [Maurille, Col. 6, lines 44-57, Office Action, page 5].

Consequently, the combination of Salas and Maurille does not teach, applicants argue, ACL control specific to forward pointers in the hierarchical structure of rooms in collaboration space.

That Salas does not teach a double linked list with ACL security on forward pointers in addition to ACL security on the rooms is apparent from examination of Salas Figure 1, which does not show forward and reverse pointers between rooms. In Salas, there is no teaching of forward and reverse pointers linking rooms with ACL security on those forward pointers, as distinguished from and in addition to security on the rooms. While Maurille may disclose forward and reverse pointers, neither Maurille or Salas teach ACL

security on the forward pointers.

Applicants' claims variously call for forward and reverse pointers between parent and children, with access control (readers/authors lists) included in the structure of the forward pointers, and are further limited to the specifics of access control as discussed above.

Maurille is cited by the Examiner as teaching databases and pointers linking them, and Applicants agree that such is taught. However, applicants are not claiming that they invented a hierarchy and pointers. Applicants invented a hierarchy or rooms to create a collaboration space with specific protocol of access control lists, including ACL lists specifically part of forward pointers used for management of security of rooms within that space. Maurille does not teach that protocol.

#### SUMMARY AND CONCLUSION

Applicants urge that the above amendments be entered and the case passed to issue with claims 1-10, 13, and 15.

The Application is believed to be in condition for

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allowance and such action by the Examiner is urged. Should differences remain, however, which do not place one/more of the remaining claims in condition for allowance, the Examiner is requested to phone the undersigned at the number provided below for the purpose of providing constructive assistance and suggestions in accordance with M.P.E.P. Sections 707.02(j) and 707.03 in order that allowable claims can be presented, thereby placing the Application in condition for allowance without further proceedings being necessary.

Sincerely,

J. Estrada, et al.

By

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